

AN ECOLOGICAL SENSE OF HEALTHY PLACE AND PURPOSE
(AESOHP)

**(a research and development programme in support of arts,
health and well-being)**

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DEDICATION:

The AESOHP programme was established in 2002 as a tribute to Dr. Ernst Philipp (1909-2000), General Practitioner, Wellington, New Zealand, for more than 50 years. He was a life-long humanist, author, environmentalist, activist for sustainable development, and the WHO-designated futurist to the former World Health Organisation (WHO) Collaborating Centre for Environmental Health Promotion and Ecology, University of Bristol, England [1]. The concepts, frameworks and projects of the AESOHP programme were developed with him [2]. He left us with his positive outlook for human values and what is truly worthwhile and can be achieved in life and living, and his favourite sayings such as: *“Everything in life is connected”*; and: *“Let’s hope we can dream the reality of our values for a long time yet”* [2], [3], [4]. Work of the AESOHP programme and its collaborations are intended to develop further and take forward what he valued and helped to achieve. The broad aim is to help people have better, fuller, more enjoyable lives.

INTRODUCTION - AESOHP & THE AESTHETIC QUALITY OF PUBLIC SPACES:

The research and educational development programme, **AESOHP, (An Ecological Sense of Healthy Place and Purpose)**, was established, with the WHO and The Nuffield Trust, London, UK, in the year 2000, initially as A ‘European’ Sense Of Healthy Place and Purpose. It evolved from work for the WHO on the aesthetic aspects of health and environment quality undertaken particularly between 1993-1996. This work includes preparation of reports, working papers and books such as the first draft of the *WHO Recreational Water and Bathing Beach Quality*

Guidelines, Humanities in Medicine: Beyond the Millennium, and Arts, Health and Well-being, for:

1. the WHO Consultation on Health Impacts of Recreational Water and Bathing beach Quality, Bad Elster, Germany, 20-22 June 1996;
2. the WHO Expert Consultation on the Development of the WHO Guidelines for Safe Recreational Water Environments, Jersey, Channel Islands, 22-27 May 1997;
3. the International Conference on the Arts in Health Care: Learning From Experience, London, UK, 11-13 September 1997.
4. the WHO European Conference on Travel Medicine, Venice, Italy, 25-27 March 1998;
5. the UNESCO sponsored First World Urban Congress on Urban Environment and Health, Madrid, Spain, 5-8 July 1998;
6. the Nuffield Trust, London, UK Windsor I and II Conferences on the Arts and Humanities in Health and Medicine, 12-13 March 1998 and 6-7 September 1999;
7. the WHO European Conference, Green Cities: Blue Cities of Europe, Forli, Italy, 12-14 October 2000.

The AESOHP programme was developed from discussions at the conference, '**Green Cities: Blue Cities of Europe**', in October, 2000. This conference was convened in Forli, Italy, within the European Campaign for Sustainable Cities in co-operation with the WHO Healthy Cities movement. It helped to extend previously published WHO information for town planning [5], [6]. At this conference: "*participants considered in the life and living of urban populations, how to promote practical applications of the sciences, arts and humanities in public and professional education, in public health and community development, and in meeting the needs for persons of all ages and backgrounds and in promoting better health and well-being*" [7]. Participants of the conference adopted the:

- WCED definition of sustainable development;
- WHO Health for All programme;
- European Charter on Environment and Health adopted in Frankfurt in 1989 by Ministers of Health and Ministers of the Environment of all European Member States;
- London Declaration on Environment and Health adopted in June 1999;
- Local Agenda 21 as United Nations Action Plan for sustainable development in the 21st century;

and recommended that an interdisciplinary collaboration of professionals should be created to:

- (a) develop and co-ordinate research for producing a commonly agreed set of basic principles underlying healthy planning and management of cities;

- (b) develop conceptual analyses for evaluating the quality of life in respect of public spaces;
- (c) prepare and evaluate a common core set of indicators for public spaces to examine the availability, utilisation and impact on public health of art works and the natural environment [7].

This conference also recommended that *“support from all parties involved should be called upon to make possible the scientific co-ordination of such work, the elaboration of documents and other products that will serve as a basis for communication strategy, and the sustainability of this initiative”* [7].

Since then, at least in the UK, with such recognised needs, a government task force has asked publicly the question: “How could we measure the quality and condition of green spaces?” [8]. **‘Urban green spaces’** were defined by this task force as: *“a mixture of private and public, formal and informal landscape and townscape within designated urban boundaries. It can include streets, boulevards, plazas, pedestrian areas, footpaths, cycleways, squares, parks and green space”* [8].

Associated with this sort of inquiry, the WHO has also explored the roles of public open spaces in towns and cities often embellished with plants and water, where they are considered to *“play an essential part in the physical and mental health and well-being of the urban population”* [5]. The WHO has reported that they *“can greatly improve the quality of city life as well as the living and leisure conditions of its citizens”* [5].

Specific for health in the urban environment, the WHO reported that, with town planning: *“If we are to encourage the use of public spaces, we need to take a great deal of care over their outward appearance and their aesthetic qualities. Our cities are made more beautiful by good architecture and street furniture, by public art works, by flower beds and floral arrangements, by fine historic buildings, by balconies in bloom competitions and so on ... The time spent relaxing and enjoying oneself for a few minutes in a well laid out public space or park is a respite and a reward in the face of everyday stress. To be able to contemplate a well-proportioned urban landscape, a floral arrangement, a square or a garden, nature itself, the sea or a river is a precious aesthetic pleasure. As seasons pass, colours change. The sound of water or of wind in the trees, and the sound of bird song have a calming effect”* [5].

Every public space, the WHO has reported, *“should be able to respond to a very wide range of demands, for:*

- *peace and quiet (for reading, listening to the birds and the sound of running water),*

- *children's games, adult leisure pursuits (bowls, swimming),*
- *games and sporting activities (skate boarding, ball games),*
- *walking and cycling on designated paths,*
- *cultural activities" [5].*

From a planning perspective, it has also been reported elsewhere that the basic structural elements of city form that need to be considered in questions of aesthetic quality include:

- districts, sites, spaces and places;
- edges of lines of life and lines of contrast;
- paths, streets, exposures and circulation facilities between different points;
- nodes, enclosures, open spaces, foci and centres;
- landmarks, focal points, monuments, and individually significant architecture;
- views (floorscapes, groundscapes, vistas, skylines and panoramas;
- the importance of movement, motion experience, dynamic vision, sequencing, rhythm and serial vision (as cities are usually experienced while in motion);
- artistic co-ordination of basic physical aesthetic qualities (form, spatial and surface such as scale, proportion, mass, void, line, tone, colour, texture, and visual richness), and basic experiential qualities such as unity, variety, complexity, coherence, dominance, ambiguity, enclosure/exposure, mystery and surprise [9].

It has also been noted that: "*a work of art can undeniably impart a 'sense of place', of identity and landmark to an undifferentiated urban space, provided that it is well sited" [10].* At least in Australia it has been reported too, that: '*positive town character*' has been positively associated with natural landscape features that are beautiful, pleasant, distinctive and interesting, by certain built features with similar qualities, and by popular social settings associated with connotations of familiarity, friendliness, openness, liveliness and safety [11].

Furthermore, the WHO has noted that: "*to encourage movement between the different public spaces of a city, it may be a good idea to link them through a system of cycle paths or pedestrian walkways. Networks of this sort have enormous value in recreational terms, and bring the world of nature into the city if they are accompanied by plants and water" [5].* To help develop a framework for standards of environmental health and aesthetic quality, the concept of '**environmental corridors**' can therefore be introduced. They can be seen as a connecting passage and that is itself a place, between two or more other places, which has its own qualities of identity and purpose, imagery and expression, such that passing through or being in it evokes an emotional response. This response can be positive feelings of resonance, enjoyment, pleasure and

a sense of well-being, or negative feelings of displeasure such that a person experiences discomfort in being there.

The AESOHP programme has evolved to support the WHO recommendations for town planning and public spaces, and to help address questions now being asked within the WHO European Region Member States and associated with the needs recognised in the WHO recommendations for '*Green Cities*' and '*Blue Cities*'.

The AESOHP programme is focused principally on the aesthetic dimensions of health. It is intended in particular, to support the **Housing and Health programme of the WHO Regional Office for Europe** and the component of this programme that '*explores images of the household and neighbourhood environment and how they can impact on health*' (Bonney, X., WHO Regional Adviser, Environmental Planning/Ecology, 2001; personal communication). This present work with the WHO follows on from that undertaken during 1989-96 and published previously from the former WHO Collaborating Centre for Environmental Health Promotion and Ecology, University of Bristol, England, by its Directors, Drs. Robin Philipp and Alexander Macara, and its Futurist, Dr. Ernst Philipp. This earlier work was focused on **Target 24 of the WHO EURO Health for All programme**: '*By the Year 2000, all people of the European Region should have a better opportunity of living in houses and settlements which provide a healthy and safe environment*' [3], [4].

The underlying hypothesis of the AESOHP programme is that: "*our mental health and well-being are influenced by the aesthetic quality of our external environment: improved understanding of this association can influence our sensitivity to environmental qualities and help each of us to identify with what we seek, can attain and wish to retain and enjoy for our health and well-being from these aesthetic qualities*" [2]. In this programme, attention is being given to the:

- **theory** as to why aesthetic appreciation and involvement with the positive qualities of the natural and built environment can help people make sense of life and give it subjective meaning, purpose and feelings of personal fulfilment;
- **scrutiny** of personal experiences and critical appraisal of progress with programmes and projects for arts, health and well-being reported by the public and different groups of health professionals;
- **examination** of evidence from published research for the benefits to health from participation by individuals in arts activities and programmes;
- **original research** to strengthen the evidence base of existing information for the associations of creative endeavour, aesthetic appreciation and environmental quality with health and well-being [2].

BACKGROUND RESEARCH THAT LED TO THIS INTEREST IN AESTHETICS:

Much of the research undertaken by the former WHO Collaborating Centre for Environmental Health Promotion and Ecology, University of Bristol, England, for Target 24 of the WHO EURO Health for All programme, was to help strengthen education and research development in environmental epidemiology programmes and to assess the impact of recreational water and bathing beach quality on public health. The findings were used with several WHO and United Nations Environment Programme reports to help emphasise the problems associated with the aesthetic quality of this recreational water environment for tourist, visitor and host residential populations. The research findings helped to justify increasing concern about the currently unstable relation between population needs, health and a sustainable environment, the physical injury, aesthetic and microbial problems of uncollected refuse and discarded litter, mixing of domestic, general and clinical waste, safe sewage disposal and fears that environmental degradation of bathing beaches could lead to loss of tourism [12]. It became apparent from this work that people make their decisions to use recreational waters principally on the appearance of the water [13].

The aesthetic quality of environments frequented by tourists is important. In Rimini, Italy, in 1989 for example, tourist bed occupancy during mid-summer dropped to 50% of total capacity due to the appearance of red algal blooms of the sea water. Subsequently, the Second International Conference on Tourist Health, in Italy, recommended that environmental quality objectives could be better considered in environmental debates for standards setting. It was then recommended by a WHO Working Group on the Health Impact of Human Exposure to Recreational Marine Waters that aesthetic standards and indicators for the quality of bathing water and beaches could be usefully developed and agreed by WHO Member States [14]. This recommendation was followed up with research findings of the Coastwatch UK studies which were undertaken annually between 1991-95 for time trends of the annual rate of different litter, sanitary and medical waste items. Some 6000 volunteer fieldworkers were involved each year in this work and each year 15% of the UK coastline was covered. The time trends between 1991 and 1994 for the number of medical items per Km of coastline surveyed showed regrettably, a four-fold deterioration in the environmental quality of bathing beaches [12], [15].

Concurrent with the Coastwatch UK studies, a health economics audit of needlestick injury data from bathing beaches identified considerable direct consequent health service costs from dealing with the injuries [16]. It was concluded that provision of litter bins, regular refuse collections and beach cleansing was insufficient **and that a greater sense of personal responsibility and individual accountability was needed.** To help in

this process, public education programmes have since been adopted widely in different parts of the world. At least in the UK, legislation for 6mm fine wire mesh grids at all storm water and shore line sewage discharge points have been introduced to help improve the quality and range of environmental controls [12]. The WHO has also adopted the importance of aesthetic factors in its guidelines for safe recreational water environments [17], [18]. There is nowadays, in support of sustainable development and following the research findings, improved understanding of the need for the concept of reciprocal maintenance; that is: *"we need to look after the things that look after us"* [19].

This background work with aesthetic aspects of recreational water and bathing beach environments contributed extensively to the development of the AESOHP programme. The programme is now exploring further:

- how a greater sense of personal responsibility and individual accountability for the environmental quality of neighbourhoods and human settlements might be encouraged;
- what is encompassed in **'health'** by the term, **'aesthetic factors'**;
- why aesthetic qualities of the built and natural environment are important for health and well-being.

THE ROLE OF AESTHETIC FACTORS IN ENVIRONMENTAL HEALTH:

Within the World Tourism Organisation, it has been noted that environmental values, economic well-being and personal health are interdependent [20]. The **WHO definition of health** (*"a state of complete physical, mental, social and spiritual well-being and not merely the absence of disease or infirmity"*) acknowledges this interdependence. It *"represents a balanced relationship of the body and mind and complete adjustment to the external environment"* [21].

To support its definition of 'health', the WHO defines **'environmental health'** as: *"comprising those aspects of human health including qualities of life that are determined by chemical, physical, biological and psychosocial factors in the environment. It also refers to the theory and practice of assessing, correcting and preventing those factors in the environment that can potentially affect adversely the health of present and future generations. This definition articulates the desire to include the elements of quality of life, and psychosocial and sustainable development issues within the sphere of environmental health"* [22].

The WHO European Charter on Environment and Health, 1989, addresses these relationships of 'health' and 'environmental health'. It states that *"good health and well-being require a clean and harmonious environment in which physical, psychological, social and aesthetic factors are all given their due importance"*. The charter addresses 'entitlements', 'rights', and 'responsibilities' of the public for environmental health and

personal happiness [23]. These factors are interdependent and the basis of environmental economics and eco-audit [24].

The concept of '**Psychological Conservation Areas**' in inner city urban environments, [10], is linked to the frameworks defined by this Charter. In Eastern Europe, the term '**ecosophy**' has been introduced to describe the need to adapt behaviour according to the local ecosystem for physical and psychological well-being [25]. It has been reasoned by the same researcher that, for our personal health, 'ecosophy' and 'ecotherapy' should be used to: "*harmonise ourselves with ourselves and with nature*", and that: "*through ecosophy and ecoeducation the human being learns to respect nature, society and the ethical sense of life*" [26]. A new discipline, '**aesthetic medicine**', has been proposed to address the interdependence of these factors [27]. It is distinct from 'aesthetic surgery' which deals with changes to bodily appearance [28].

The philosophy literature supports these emerging frameworks. It has for example been reported there, that: "*both art and natural beauty have values in themselves ... Enriching our aesthetic experience goes together with developing our powers of imagination and understanding ... If we develop our ability to respond to art we shall develop our potential as human beings*" [29]. Philosophers have also explored the social construction of aesthetic response [30]. Within it, 'psychological aesthetics' [31], and 'environmental aesthetics' [9], have emerged as areas of special interest. Debate surrounds however, the basis of aesthetic value and "*if it is a property in an object or an experience of a perceiving person*" [32].

AESTHETIC FACTORS AND THE WHO HEALTH FOR ALL PROGRAMME:

Given the WHO European Charter on Environment and Health, WHO definitions of '*health*' and '*environmental health*', and WHO recommendations for more work to be undertaken on aesthetic indicators and standards, the links between morals, personal ethics, art, aesthetics, well-being and environmental health deserve further study [2]. The **WHO 'Health for All'** programme is a framework for it. For example, associated with the Health for All programme, the WHO has requested that:

- health and development issues, as noted by Dr. Gro Harlem Brundtland, Director-General, WHO, be considered together [33];
- researchers look "into new, unfamiliar areas and work with new colleagues in new ways" [34];
- different environmental impact categories be considered [35];
- support is given for the WHO European Regional strategy of '*Health for All*' in which the components are noted to fit together as an '*integrated model*' [36].

This WHO framework for innovative inquiry has been endorsed. In 1999, for example, Professor George Salmond, former Director General of Health, New Zealand, identified that: *“If progress is to be made in improving the nation’s health, new concepts, knowledge and skills must be introduced. Analyses are needed which break away from the narrow confines of biomedicine and economic rationalisation, and which encompass more socially and ecologically conscious constructs. The latter would empower people and involve communities in democratic approaches aimed at enhancing well-being and health status”* [37].

The WHO Health for All programme also endorses student-centred learning and emphasises the worth of empowering people with the means to help improve their ways of perceiving their lives, life and aspects of their lifestyles [38]. **‘Respect for All’** is implicit in this programme [39]. Settings suggested by WHO for local, relevant health action include:

- neighbourhoods;
- schools;
- hospitals;
- workplaces;
- public parks;
- transport environments such as airports, rail and bus stations, coaches, buses and trains, aeroplanes, ships and ferry terminals;
- cities;
- villages and
- islands [40].

The need in these sorts of settings to provide environmental opportunities for improved aesthetic experiences is recognised [41], [42], [43]. Environments with high aesthetic quality provide pleasurable places to be for contemplation, personal reflection, enjoyment, relaxation and replenishing the soul. They are a place for quietude and stillness that can help to renew one’s inner energies and encourage a healthy personal outlook [2], [40]. Greater awareness of these qualities and the role of aesthetic factors, is however needed. It is therefore not surprising that at least amongst members of the **WHO Rural and Urban Development and Housing network**, a need for new training materials on the aesthetic aspects of housing and human settlements has been identified [44].

THE LINKS BETWEEN AESTHETICS AND WELL-BEING:

Improved and wider understanding is needed for what is intended by the word *‘aesthetics’*. The word is derived from the Greek *‘aisthanesthai’* (to perceive), and *‘aistheta’* (things perceptible) [9]. It is defined in the Oxford Dictionary as: *‘having an appreciation of the sense of beauty in accordance with the principles of good taste’*. It is also relevant for

tourist health to note that the aesthetic response involves emotions which include being 'uplifted', 'moved', 'exhilarated', and 'entranced' by an environmental experience [30]. 'Aesthetic' implies therefore the presence or possession of qualities that are pleasing to the senses. For our environmental health we can choose, it seems, to live in an 'aesthetic' or an 'anaesthetic' world.

To help develop the research and educational projects that need now to be undertaken for associations of health and aesthetics, the '**aesthetic quality of an environment**' has been defined as: "*the extent to which an external factor or combination of factors evokes a pleasurable emotional response from the stimulation of our five bodily senses of sight, hearing, smell, taste and touch. This response establishes a resonance within ourselves and with the external factors responsible for that stimulation. Resonance helps to promote positive affirmation of ourselves, enhances our well-being and encourages positive identity with the causal environmental factors*" [2], [40].

This resonance, within individuals, helps give us our 'balance' in life and our sense of 'belonging' (or having a place) and of 'being' (or having a purpose). The Hellenistic Greeks such as Aristotle, in exploring 'balance', and questions of ecology and organic unity, associated this resonance with '**ataraxia**' (inner peace). They associated ataraxia with '**eudaimonia**' (a feeling that reflects a combination of well-being, happiness, contentment, pleasure and satisfaction and of living the best life possible [45]).

Two English words have been adopted within the AESOHP programme to help describe the links between aesthetic appreciation, creative activity, health and well-being:

1. The English word, '**tootle**', (defined in the Oxford Dictionary as '*to move casually along*') encapsulates the pleasure that can be derived from utilising environments of high aesthetic quality to enhance personal experience [2]. For the AESOHP programme, '**tootling**' is seen as an activity: "*in which there is environmental opportunity of sufficient environmental quality to be able to enjoy oneself, reflect and forget the pressures of daily living, abandon oneself to the pleasures of rhythm and exercise and resonate with the beauty of the natural outdoor environment*" [46].
2. '**Doodling**' is defined in the Oxford Dictionary as "*drawing or scrawling absent-mindedly*". For the purposes of the AESOHP programme it is also thought of as: "*the free and spontaneous creative expression of what the mind is experiencing from its connections of thoughts, feelings and emotions and when allowed to meander gently without specific purpose or intent*" [47].

Given these expanded definitions, both 'tootling' and 'doodling' are considered to be constructive, worthwhile activities that can help to foster feelings of well-being, eudaimonia and ataraxia [2]. They can also help lead people to personal creativity found: "*sometimes flowing spontaneously while in a relaxed, half-awake state when the mind is in 'stillness' and untroubled by external stimuli, allowing the gentle surfacing of inner tensions and delights and the outward expression of innovative, imaginative, evocative, inspired and inventive thoughts*" [48].

The ancient Greeks recognised these links. Plato, for example, advised us to get outside into the countryside and, while walking along some pleasant pathway, to allow the beauty of the natural surroundings to be absorbed into our consciousness. He believed that the movements of the body in a gentle walking rhythm would start to influence gradually the functioning of the mind [49]. Furthermore, as Epictetus, reported in the 4th century BC: "*Men are disturbed not by things but by the views they take of them*" [50]. These such views of ancient philosophers remain just as relevant for us today and for tourist health. Environments with appropriate aesthetic qualities for tootling and doodling should therefore be encouraged not just for travellers but also local residents. They provide opportunities to develop and enjoy a health-enhancing resonance within ourselves and with the external factors responsible for that stimulation. This resonance can lead to creative endeavour that, for example as poetic expression, enhances well-being, personal morale and self-esteem [51].

The emotional sense of well-being associated with tootling and doodling from such environmental experience has been encapsulated in poems of the AESOHP programme such as: '*With All My Senses*' [2], [52], [53], '*At The Beach*' [2], and '*A Rural Night Sky*' [54]. This sense of well-being is associated with the resonance that can arise between intra-personal qualities of our internal environment and those of the surrounding external environment. A personal example from such experience is, '***This Morning***':

This morning danced with sound
chords strung out
in patterned song;

Notes chorused loud
birds chattered with voices
full throated their joy;

Music resonated in the trees around
captured as if a cathedral there
held what it was I felt;

My heart leapt
pulsed and raced
warmed now to the day;

Uplifted moved
from singing inside stirred
my spirits soared.

The associations of medicine, poetry, and health with aesthetic appreciation of the natural environment are expressed beautifully by the English poet, William Wordsworth, in his poem, '**An Evening Scene**':

Come forth into the light of things,
Let nature be your teacher.
She has a world of ready worth,
Our minds and hearts to bless -
Spontaneous wisdom breathed by health.

'Tootling' and 'doodling' can also be considered as activities that support the need for high standards of aesthetic quality in urban environments. In support of this viewpoint, it has for example been reported that: "*an eloquent and simple testimony of human need and hunger for the verdant and flowers is the sight one has on driving from Hong Kong airport along Wanchi to central Hong Kong*" where: "*literally thousands of balconies ... are festooned with countless pot plants and flowers*" [55].

THE ASSOCIATION OF TOURIST HEALTH WITH ENVIRONMENTAL VALUES:

For health and well-being, as noted earlier, it has been recognised at least since the times of the ancient Greeks, that a balanced relationship of the body and mind and complete adjustment to the external environment are needed. But what do people value in the external environment? After all, "**values are the priorities we give to qualities**" [56]. Tourists are therefore likely, in their travel, to bring with them their own environmental values and to be influenced by values they experience during it.

For tourist health it can therefore be difficult to assign priorities to environmental qualities. Factors that need to be considered and that may be valued in different ways by different population groups include the:

- health and behaviour of local residents, people at work and visitors;
- physical qualities of the natural and built environment;
- gains and losses of environmental opportunity in the built and natural environment for rest, recreation, contemplation, reflection, enjoyment, peace and quiet;

- economic and social well-being of the different populations of residents, people at work and visitors to the area;
- understanding of what visitors seek when they travel, and of what residents in a locality and people at work there wish to sustain in their cultural, social, emotional, spiritual, aesthetic and lifestyle values;
- will and ability of residents and people at work to recognise and retain their rights of respect and to act on that heritage [2].

Personal values associated with interpretation of the importance of these factors can drive tourists to or from an area. In addition, perception and interpretation of specific sensory stimuli can influence tourists considerably. With respect to hearing, for example, one person's 'music' can be another person's 'noise'. *"The pleasantness of sounds has a simple physical basis ... the ear can discriminate easily between noises, that in themselves are uninteresting, if not annoying, and notes, which have an unmistakable charm. A sound is a note if the pulsations of the air by which it is produced recur at regular intervals. If there is no regular recurrence of waves, it is a noise. The rapidity of these regular beats determines the pitch of tones. That quality or 'timbre' by which one sound is distinguished from another of the same pitch and intensity is due to the different combinations of waves in the air; the ability to discriminate the various waves in the vibrating air is, therefore, the condition of our finding music in it; for every wave has its period, and what we call a noise is a combination of notes too complex for our organs or our attention to decipher"* [57].

How readily therefore, if they seek it, can tourists find a truly 'tranquil zone'? The Council for the Protection of Rural England defines a '**tranquil zone**' as: *"anywhere that lies at least 4 Km from a large power station, 3 Km from a major motorway, major industrial area or large city, 2 Km from other motorways, trunk roads or smaller towns, 1 Km from busy local roads carrying more than 10,000 vehicles per day or the busiest main-line railway, and beyond the interference of civil and military aircraft"* [58]. If then such places are not planned for and allowed, are they readily found?

Improved understanding of tourist health values and those of local residents is, then, important for both the sustainable development and economic well-being of local communities and the health of visitors and residents. Increased recognition of the interdependence of aesthetic quality, environmental values, health and well-being is obviously important in this, as is the concept of our responsibilities to ensure it [19]. This interdependence has however, until recently been little studied and remains poorly understood [2]. It is nevertheless recognised [20], and becoming increasingly important for our quality of life [59]. From such considerations the concept of '**amenity values**' has arisen at least within the agriculture and forestry industries. Amenity values are: *"those natural or physical qualities and characteristics of an area that contribute*

to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes" [60]. Organisations which depend on tourist health support the concept of amenity values. For example, The National Trust, England, has reported that: "beautiful countryside and a high quality built environment are driving forces for economic growth" and that at least in the U.K., "some 40 per cent of jobs in tourism depend on a high quality environment" [61].

How then should environmental valuing for tourist health be approached? **A value** it has been suggested, "is a set of principles which are consistent and inform and direct our thoughts, actions and activities. That is to say, a value has essentially an intellectual base, but that this base informs and has its expression in action and in life" [62]. More succinctly, as noted earlier, values are the priorities we give to qualities [56]. They are also seen as a means of putting some tangible financial value on the worth of assets [63]. Research is however needed to understand better public perceptions of what is meant by 'aesthetics', how aesthetic qualities of the external environment can be valued and aesthetic health threshold limit values established, what relevant maximum pollutant exposure limits should be allowed, the effectiveness of appropriate measures to ensure aesthetic quality, and what constitutes 'nuisance thresholds' [40]. Any standards that are derived depend also on:

- the ability to integrate patterns of perception and personal values,
- the view of public pressure and community action groups,
- research findings,
- outcomes of using research findings in educational programmes dealing with environmental values and any resultant changes in behaviour, and on
- the ability to introduce and enforce relevant legislation [2].

Often too, there are many hazards to control in tourist resort areas but for which only limited resources are available. The hazards therefore need to be ranked in priority for the introduction of preventive measures.

Five main questions have been identified for planners, councillors, architects and public health professionals **to consider in the environmental impact assessments:**

1. How serious is the problem in terms of the likelihood of death, disability, disease, discomfort or dissatisfaction?
2. How many people are likely to be affected during a year?
3. To what extent is an intervention technically feasible and likely to relieve or prevent the problem?
4. What does an analysis show for the benefits obtained from the risk, adverse effects of the risk, and the cost implications for different systems of hazard control?
5. To what extent are the communities (residents, workers and/or visitors), likely to accept or adopt the intervention, behaviour or other change required? [64].

Some work to establish aesthetic standards has been undertaken. For example, one definition of a nuisance, noted in 1986, is that it is: *"something which is undesirable but can be endured if getting rid of it is painful, difficult or expensive"* [65]. Since then, the need to quantify risks from pollutants considered to be a nuisance has been recognised. For example, the WHO Air Quality Guidelines for Europe, 1987, define a **'nuisance threshold'** as: *"the level at which less than 5% of the population experiences annoyance for less than 2% of the time"* [66]. Aesthetic standards for rural environments are also being developed. One example is the Council for the Protection of Rural England, definition noted earlier for a 'tranquil zone' [58].

More work is now needed to help establish other aesthetic standards and evaluate their use in environmental impact assessments. For example in Venice, Italy, there is a plan at present to build a new underground railway: *"to move thousands of tourists every hour between the mainland and the city centre in the Venetian lagoon"* [67]. There is the concurrent worry there, within the environmental impact assessment process, that isolation of the city of Venice, *"which to many people is part of its magic, would be destroyed"* [67]. Napoleon referred to some of this magic when he described there the Piazza San Marco as: *"the most beautiful drawing room in Europe, for which it is only fitting that the heavens should serve as ceiling"* [68]. Could then the removal of this sense of isolation, have the effect of reducing substantially the value and interest of Venice to tourists? Would this have a major, long term effect on the local economy and what aesthetic questions arise as a consequence?_

One approach, used in the UK to support impact assessment and environmental valuing of urban public spaces, is the **Green Flag Award scheme** for individual green spaces. It rewards and encourages good management and maintenance of parks. Each site is judged against criteria including whether it is:

- a welcoming place;
- a safe environment;
- maintained in a sustainable and an environmentally sound way;
- clean and well maintained; and
- actively involving the local community [8].

The Green Flag Award scheme has its parallel in the **Blue Flag Award scheme** of the Foundation for Environmental Education in Europe for the quality of bathing beaches. The Blue Flag scheme denotes that the following standards are being achieved:

- compliance with the microbiological parameters of the EEC Bathing Waters Directive;
- no industrial or sewage discharges affecting the beach area;

- no gross pollution by visible sewage-related or other visible waste, or hydrocarbon waste (such as oil slicks);
- no algal or other vegetation materials accumulating or decaying on the beach area;
- freedom from litter on adjacent land and sea;
- high quality beach area management in respect of cleanliness and sanitation and including beach cleansing and the provision and maintenance of clean toilet facilities in good working order and litter bins that are readily available and emptied regularly;
- safe access to the beach;
- beach guards on duty during the bathing season and/or alternative adequate safety provisions including life-saving equipment;
- availability of first aid and where it can be obtained is clearly signposted;
- well-maintained buildings and equipment on the beach [69].

Some local authorities in the UK have also developed '**indicators of quality of life**' to help explore questions of sustainability in urban environments surrounding issues of:

- investing in a sustainable environment;
- building a thriving economy;
- achieving lifelong learning;
- promoting health and well-being;
- strengthening local communities.

In Bristol, England, for example, it has been reported that: "*every neighbourhood should have attractive streets, buildings, a variety of homes, with low levels of traffic and pollution, green spaces and basic services (jobs, shops, schools and health services) within walking distance* [70]. One hundred indicators are used to publish an annual report for the public. Indicators, relevant for the quality of life there associated with public spaces, include:

- the number of complaints of noise, abandoned vehicles, and dog fouling;
- patterns of redevelopment for new housing of land formerly used by industry;
- travel patterns and methods of transport of urban residents within the city;
- the percentage of domestic waste recycled;
- carbon dioxide emissions from different components of the transport, waste and residential sectors;
- visitor figures to the city's main museums and art gallery;
- the number of people participating in at least three artistic, cultural and leisure events in the past 12 months;
- patterns of crime and racist incidents;

- the percentage of gardens with, separately, robins, blue tits, house sparrows, blackbirds and thrush, as five different bird species, which have been identified during the past 12 months;
- the percentage of the population who feel wild birds have increased or stayed the same in the last three years;
- the percentage of gardens or ponds with frogs;
- the annual woodland planting (in hectares);
- air quality monitoring for levels of carbon monoxide, nitrogen dioxide, ozone, sulphur dioxide and particulate matter (PM10);
- the number of requests for rat treatment;
- the percentage of rivers and streams in the 'good' or 'moderate' biological and chemical categories [70].

AESTHETICS, ENVIRONMENTAL VALUES AND THE AESOHP PROGRAMME:

People vary considerably in their sensitivity to aesthetic qualities of the external environment, and in their perceptions of values associated with them. For example, despite progress in understanding by the public and health professionals for roles for the arts in health, medicine and humanitarian work, people often ask:

- Why do the arts matter?
- Why should I explore my own creativity?
- Do the arts affect me directly?
- Is the aesthetic quality of our environment important? [2].

The objectives of the AESOHP programme include research, policy formation, and educational development that helps people to better:

- foster their own creative thinking and endeavour;
- nourish the imagination and feed minds in ways that encourage a greater sense of meaning and purpose in life and living;
- enjoy for their health and well-being, the associations of art and nature;
- appreciate the health benefits of integrating natural environments into urban planning;
- encourage architecture that is sensitive to its environmental setting;
- foster the consideration and development of aesthetics when questions about the built environment are considered;
- seek, establish and adhere to aesthetic standards of environmental quality;
- utilise art works from the visual and performing arts to enhance environmental quality;
- find ways of establishing 'environmental corridors' and other places and spaces in urban environments that will help to improve imagery of the place and, for their health and well-being, attract walking and cycling commuters, out-of-town visitors and tourists, and local area residents.

The AESOHP programme was established to help examine:

1. the need to explore ways of stimulating and motivating individuals to help each of us develop further our own positive sense of enjoyment that can come from fostering constructive thoughts, nurturing personal inquiry, expressing our creative energies and from being innovative and practical in what we do;
2. how, in the formation of our value systems, there is an inter-weaving of information from science, technology, arts, law, justice, philosophy, ethics, morals, civilisation, culture, customs, humanity, belief systems, spirituality, aesthetic appreciation, and the perception of this interdependence in our conscience and consciousness;
3. questions arising within the discipline, '*emotional economics*' which has emerged as a broad-based value system in which people are asking '*what is the real wealth in having a great life*' and how, within many societies the present economic indicators of '*progress*' do not seem to always take into account what, deep-down, many people often seek for the quality of their personal lives. Other newly-emerging related disciplines which also now address different aspects of present-day human value systems and that are having an impact on '*values*' and '*valuing*', include '*environmental ethics*' [24], '*environmental aesthetics*' [9], [29], and '*psychological aesthetics*' [31];
4. the desire many people have of wanting to feel that they '*belong*', that they are part of what is going on around them, and that they can contribute to the process in their society and local community of sustainable research, educational and social development and economic growth - that is, the having a sense of '*citizenship*' instead of sometimes feeling disenfranchised and, equally, of feeling that they are helping to build an enabling, positive model of living in which they can experience '*mutual shared investment for reciprocal shared gain*'.

The AESOHP programme extending inquiry into these four broad areas, is seen as a contribution to medical practice in support of the motto of the Royal New Zealand College of General Practitioners and the Royal College of General Practitioners, UK - '***cum scientia caritas***' (science with humanity and feeling) [71].

Work of the AESOHP programme also recognises that artworks are used to express feeling, interpret experience and transform appearance. In the programme, **the purposes of art in the environment are being considered as helping to:**

- enrich and enhance the lives and well-being of people;
- alleviate stress and boredom;
- provide reassurance, comfort and humour;
- give purpose and dignity to an area;
- encourage public use of an area;

- improve sign posting and establish landmarks to assist people in finding their way or to be given directions [2].

For the AESOHP programme, different uses for the arts in health have also been identified [2]. They include arts as:

- research tools;
- practical activities for creative endeavour and expression to help enhance health and improve well-being;
- enhancing the aesthetic quality of an environment;
- methods to stimulate positive receptivity of the five bodily senses to aesthetic quality of different natural and built environments and any artworks in them, and in ways that benefit health and emotional well-being;
- a means to help people interpret events in their lives, attain insight into any difficulties being experienced, and to derive from this, feelings of individual meaning, personal support and emotional pleasure, and in ways that the resultant sensations can be expressed, shared and imparted to others for their consequent enjoyment as well [2].

To help realise its objectives, the AESOHP programme is multi-disciplinary. It is a deliberate response to the WHO request noted earlier for innovative research, health and development issues to be considered together, and for new environmental impact categories to be considered [33] - [36].

THE AESOHP ARTS-SCIENCE SPECTRUM OF INQUIRY:

In response to the WHO request for innovation and new interdisciplinary collaborations, the AESOHP programme has developed **an arts-science spectrum of inquiry** [2], [47], [71]. It spans from:

- (a) the **subjective**, intuitive, individually inspirational, **artistically** expressive viewpoints to;
- (b) the **objective**, measurable, deductive, logical and **scientific** perspective.

This model recognises that both the artistic and scientific approaches are expressive and informative and that each has its own methodologies and ways of benefiting and extending the evidence base. Neuropsychology is a discipline that helps health professionals to link these two approaches. In neuropsychology it has for example, been noted that the neocortex of the human forebrain has been described as the thinking brain: *“the left hemisphere is Apollonian; verbal, mathematical, logical, deductive, and oriented towards the external environment (‘outward bound’), whereas the right hemisphere is Dionysian; holistic, intuitive, spatial, pattern-recognising, and concerned*

with inner spaces ('inward bound') [9]. The AESOHP arts-science model therefore recognises the links between philosophy, psychology, environment and health, and the importance of 'emotional economics'.

The AESOHP programme has, with its collaborators and this combined arts and science approach, adopted a broad range of quantitative and qualitative approaches to:

- contribute to the research and education evidence base for roles of the arts and humanities in health, medicine and humanitarian work;
- help to improve the quality of the evidence produced;
- extend the range of information available;
- explore ways of using findings from applications of the arts to help bridge the health and development needs of person-focused, patient-centred and evidence-based medicine.

Challenges however to which the AESOHP programme is having to respond in developing its research and development projects include:

1. identifying practical measures that can be readily audited of better stimulating and motivating people to help them, as individuals, develop further their own sense of inquiry, ideas, creativity and innovation, and in ways that they can enjoy and that will help their health and well-being;
2. how problems might be addressed that have arisen in society for many people from their perception that, nowadays, apparently widespread superficial, short-lasting values based on wishes for immediate gratification do not help, longer-term, to expand or otherwise exercise the mind, feed community spirit or nourish the imagination in sustainable, personally-satisfying, and enduring ways [57], [72];
3. ways of helping to extend education programmes which encourage personal growth of individuals based on their increased awareness of the personal pleasure, sheer sense of fun and resultant intrinsic happiness that many people find can come from being able to inquire and seek out for themselves, and that is based on:
 - learning for themselves how to make and utilise links between 'scientific endeavour',
 - the finding from this of 'facts',
 - interpretation of the facts so that they become 'information',
 - evolution of 'understanding' that comes from this process, and from this
 - the development of 'wisdom', which in turn can then foster
 - encouragement within individuals to 'think' and 'act' for themselves and reason something out in their own mind such that they can truly 'see' what they are doing, where it might lead, and how it can influence their sense of personal fulfilment in living a full, worthwhile and satisfying life.

Developing, adopting and utilising this approach could, within the concept of **'life management'**, help people to formulate better their on-going personal lifestyle development and encourage the building of more positive outlooks in life;

4. how people might be encouraged to become more accountable personally and responsible individually for what they do for environmental quality where it could affect others adversely and to think of their needs and wishes too:

examples encountered frequently in the general environment include the dropping of litter in the street/park, on the beach/bush walk/mountain track, playing of stereo system in ways that are inconsiderate to neighbours/visitors, bullying/harassment in public places/at school/in the workplace/on the roads, using mobile phones within the hearing of other people, unnecessary use of auditory devices associated with remote locking of car doors, the intrusive noise of unattended house alarms, and cigarette smoking in restaurants/public gardens/ other public places.

Within the AESOHP programme, **three recently-completed practical, published and international projects to help address these challenges**, have been:

- (a) a study of the question: **'Aesthetic quality of the environment: Why does it matter?'** This work was prepared for the conference, **'Green Cities : Blue Cities of Europe'**, Forli, Italy, 2000, and published by the WHO Collaborating Centre for Tourist Health and Travel Medicine, as a book chapter [2]. The fully referenced review chapter is available on diskette and Dr. Walter Pasini, the book editor has given permission for it, on request (to Robin Philipp), to be e-mailed from the CHEE, Bristol, England. Uses of this book chapter brought to our attention to date in the U.K., include reference to it in helping to formulate policy development for public art and environmental quality improvement programmes of the London Underground train travel system and of health care buildings developed and managed by the British National Health Service Estates Department, and its inclusion to help develop studies for the interaction of plants and well-being in a new 'Plants and Health' education and research programme of the Eden Project in Cornwall. This latter project, described in its brochure as *'a living theatre of plants and people'* has been funded by the Millennium Commission (www.edenproject.com). It opened on March 17th, 2001, and in its first year attracted two million visitors, 72% of whom were tourists (Eden Project, personal communication, 2002).
- (b) preparation of a book chapter, **'Hydration and Health'**, for the forthcoming book, **'Water and Health'**, being published by **Culligan Italiana S.P.A.**, in conjunction with **World Water Day 2002**, work of the WHO Collaborating Centre for Tourist Health and

Travel Medicine, Rimini, Italy, and work of the UK '**Water is Cool in School**' campaign [www.eric.org.uk]. This chapter is an evidence based review. It discusses points that help people to reach informed decisions when choosing beverages and is intended also to help ensure appropriate access to potable drinking water can become available for all people. Other chapters by collaborators discuss dehydration, drinking water quality, drinking water dispensing machines, diet and nutrition, other beverages, weight, hydration and beauty, sport and water consumption, and problems that can be experienced by travellers, the elderly and children.

- (c) preparation of two chapters, '**Recreational Water and Beaches**' [69], and '**Algal Blooms**' [73], and co-authorship of a third, '**Skiing**' [74], for the book, '*Travellers Health*', Fourth Edition, Ed. Richard Dawood, published by Oxford University Press, England, in 2002. These chapters discuss responses of organisations such as the WHO, World Tourism Organisation, and the United Nations Development Programme to problems associated with the recent rapid and sometimes uncontrolled development of coastal areas, the criteria travellers can use when making informed choices as to whether or not a beach is likely to be both clean and safe, and aspects of skiing safety in the winter sports recreational environment.

AESOHP PROJECTS, COLLABORATION AND SPECIAL INTERESTS NETWORKING GROUPS:

The AESOHP programme has developed a '**Community Health Gains Model**' as a sequence of 10 linked points to help reason the worth for public health of having '**healthy places**' and '**a healthy sense of purpose**' [2]. **These points address:**

- the interdependence of lifestyle, self-esteem as a personal sense of value and individual worth, and well-being as a feeling of contentment, happiness and health;
- environmental and personal gains from heightened awareness of the concept of reciprocal maintenance;
- utilisation of qualitative and quantitative research methods;
- the need to audit different activities;

and reason that:

- a community is more than a collection of people, it has an '*esprit de corps*', and that becoming actively involved in it gives a sense of belonging and helps to improve well-being;
- heightened self-esteem is likely to lead to a healthier lifestyle;

- creative expression and aesthetic appreciation can result in personal and community health gains through changes in cognition, feelings and behaviour;
- improved well-being and self-esteem can lead to reduced dependence and prescriptions for psychotropic medications, less repeat attendances at Primary Health Care Centres and Accident and Emergency Departments, healthy lifestyle changes such as reduced smoking, less use of alcohol and addictive drugs, improved diet and nutrition, and more physical exercise;
- more constructive health-enhancing leisure time pursuits such as greater attendance at adult extension further learning and arts appreciation courses, outdoor nature studies, recreation and sports activities;
- less truancy, delinquency and crime;
- less sickness absence from school and work;
- 'arts for health' can be seen as a public health intervention of different programmes and projects targeted to mental health promotion;
- an evaluation battery of quantitative and qualitative research methods are needed to determine if interventions involving the arts in health care and in health and environment improvement programmes benefit people and if so in what way, by how much, and if the perceived benefits from its delivery and availability are cost-effective.

The AESOHP programme is now building on this model. Developing the arts-science spectrum of inquiry has been the next step. In it, the scientific and artistic aspects of inquiry and expression from both epidemiological and clinical strategies for public health have been combined [2].

Traditionally, the AESOHP programme has noted, the sciences have been used to study environmental values and their association with well-being. They have been the basis for setting guidelines of environmental quality [2]. From recent research it is however now appreciated more that the arts can be used equally to help assess environmental values. There is, in risk and environmental impact assessment, improved understanding nowadays that **the way we look outwards at our world influences our perception of it and our values of what is 'truly' important in it, and, as a consequence, what we in turn do with our lives in this world we inhabit** [47], [48], [71]. Therefore, as well as what the sciences contribute, the arts are being used increasingly to help explore, identify and express what we seek and consider worthwhile in our surrounding, external environment [2]. We are however, not always aware of those environmental values we want to keep, or those we have lost and seek to recover; the subjective, personal, intuitive ideals can be difficult to appraise and measure [54], [75]. If we are to sustain our environmental values, the qualities they are based on will need to become better recognised, measured and assessed. This will require substantial input from both the arts and sciences.

The AESOHP arts and science-based projects are therefore intended to help extend the research and educational evidence base for environmental valuing and health gains [2]. Outputs arising from these projects are intended as tools to help people improve further the quality of their own lives. 'COMFORT' (*Climbing Our Mountains Finding Our Rainbows There*) is an acronym used with the projects to help emphasise this goal.

Present projects include:

- developing methodologies to help study patterns of perception for the word '*aesthetics*', how images are formed and perceived for the quality of neighbourhood environments, the development, utilisation, perception and health benefits of '*environmental corridors*,' the place of gardens whose purpose is to help enhance health, and the roles of plants in well-being in urban environments and health care settings where aesthetic, biological, cultural, architectural and artistic diversity is being encouraged in ways that help to improve the likelihood of their 'healthy use';
- completing the forthcoming Nuffield Trust book, '*Arts, Health and Well-being*' [47];
- preparation for The Nuffield Trust, London, of '*A User's Guide to the Arts in Health Care*'. This book is in three sections: the development of a research framework to explore further the evidence base for health benefits; guidance for health care purchasers and health promotion specialists; and a review of the interdependent psychodynamics of health, creativity and aesthetics;
- economic evaluations for direct health care cost savings from arts interventions such as creative writing and poetry programmes that help to improve one's sense of personal imagery and encouraging, thereby, a special sense of '*place*' in society and an individual sense of worthwhile '*purpose*';
- qualitative research to help establish interdisciplinary focus groups through international virtual networking to create '*knowledge clusters*'; these clusters it is hoped, will be able to help examine how neighbourhood environment imagery evolves, how emotional economics for such valuing and value standards are developed, and how health indicators can be established that will assist the setting of aesthetic standards, environment planning and quality monitoring.

CONCLUDING POINTS:

Interest is increasingly rapidly for the associations of environmental and aesthetic qualities with health and well-being. Evidence is accruing for the importance to health of ensuring that high standards of these factors are sustained. They have an important role for mental health and emotional well-being, as does personal, artistic, creative endeavour.

These roles deserve more attention as the WHO has reported for example that in Europe: *"15% of the population is estimated to suffer ... potentially incapacitating forms of mental distress ..."* and that: *"these conditions affect social well-being and create the risk of more serious mental health problems and life-threatening behaviour such as suicide, violence and substance abuse"* [76]. The AESOHP programme is intended therefore to explore and help gather evidence for the roles of environmental aesthetics and creative endeavour in benefiting health and well-being.

In support of health needs identified by the WHO [76], aesthetic quality and artistic endeavour can, it is believed, help in society to give individuals a healthy sense of place and purpose and reduce the likelihood of:

- despair of one's situation;
- despondency in one's feelings;
- disorder to one's personal life;
- disruption to the sense of purpose in life and living;
- decadence in the quality of place where one lives.

Evidence is emerging now that the mental health gains from arts interventions intended to improve the standards of environmental health can also help to reduce the chances from psychological ill health of:

- dissatisfaction;
- discomfort;
- disease;
- disability, and;
- death.

Further well-designed studies are however needed to improve the quality of the research evidence that is at present available.

In its work to support specifically, tourist health, the AESOHP programme was established to help prevent the loss of environmental qualities that tourists often seek when making their travel choices, consider ways of enhancing health and well-being through the development of opportunities for people to have pleasurable, aesthetically desirable experiences in different environments, and to help encourage sustainable development of tourism that is linked to the economic well-being and health of host, visitor-receiving populations. For its project work to be developed further and the objectives to be achieved, collaborations with the programme are encouraged. The director can be contacted by e-mail: [**Robin.Philipp@ubht.swest.nhs.uk**].

REFERENCES:

1. Philipp, R. (2001). Obituary: Ernst Philipp. *British Medical Journal*; **322**: 558-559.
2. Philipp, R. (2001). *Aesthetic quality of the built and natural environment: Why does it matter?* pp.225-247. In: *Green Cities: Blue Cities of Europe*. Editors Walter Pasini and Franco Rusticali; pub. WHO Collaborating Centre for Tourist Health and Travel Medicine, Rimini, Italy, with the WHO Regional Office for Europe; 265pp.
3. Philipp, R., and Macara, A.W. (1991). *Towards a Framework for Sustainable Development and Environmental Epidemiology Within Target 24 of the WHO Health for All Programme: A Report for the World Health Organisation*. Environmental Epidemiology report No. 124; 52pp.
4. Philipp, R., and Macara, A.W. (1993). *Environmental Epidemiology Within the Environmental Health Targets of the WHO Health for All Programme: A Report for the World Health Organisation*. Environmental Epidemiology Report No.159; 52pp.
5. WHO. (1997). *Town Planning No.18: Green Cities, blue cities*. pub. WHO Regional Office for Europe; 24pp.
6. WHO. (1997). *Town Planning No.27: The city of the future*. pub. WHO Regional Office for Europe; 24pp.
7. Philipp, R., and Bonnefoy, X. (2001). *Conclusions and Recommendations*. pp.256-257. In: *Green Cities: Blue Cities of Europe*. Editors, Walter Pasini and Franco Rusticali. pub. WHO Collaborating Centre for Tourist Health and Travel Medicine, Rimini, Italy; 265pp.
8. Department for Transport, Local Government and the Regions; UK Government. *Green Spaces, Better Places: Interim report of the Urban Green Spaces Task Force*. [www.urban.dtlr.gov.uk/taskforce/report].
9. Porteous, J.D. (1996). *Environmental Aesthetics: Ideas, Politics and Planning*. pub. Routledge, London; 290pp.
10. Petherbridge, D. (1987). *Art for architecture: A handbook on commissioning*. pub. London: Her Majesty's Stationery Office; 133pp.

11. Green, R. (1999). *Meaning and form in community perception of town character*. *Journal of Environmental Psychology*; **19**(4): 311-329.
12. Philipp, R., Pond, K., and Rees, G. (1997). *Research and the problems of litter and medical wastes on the UK coastline*. *British Journal of Clinical Practice*; **51**: 164-168.
13. Shah, A., Suhr, C., and May, V. (2000). *The effectiveness and limitations of public information for bathing water quality*. p.22. In: Abstracts Book: Ulysses in the Third Millennium: 2nd European Conference on Travel Medicine, March 29-31, Venice, Italy; pub. WHO Collaborating Centre for Tourist Health and Travel Medicine, Rimini, Italy; 190pp.
14. WHO. (1990). *Final Report: Working Group on the Health Impact of Human Exposure to Recreational Marine Waters*. Rimini, Italy, 27th February-2nd March. ICP/RUD, 5 May, 3033r, 74pp.
15. Philipp, R., Pond, K., and Rees, G. (1994). *Medical wastes found on the coastline are increasing*. *British Medical Journal*; 309: 471.
16. Philipp, R. (1993). *Community needlestick accident data and trends in environmental quality*. *Public Health*; **107**: 363-369.
17. Williams, A.T., Pond, K., and Philipp, R. (2000). *Aesthetic aspects: Chapter 12*, pp.283-311. in: *Monitoring Bathing Waters: A practical guide to the design and implementation of assessments and monitoring programmes*, Eds. Bartram, J., and Rees, G. pub. E & FN Spon, London and New York; 337pp.
18. WHO. (1998). *Guidelines for Safe Recreational Water Environments: Coastal and Fresh Waters*. EOS/DRAFT/98.14; 205pp. pub. WHO, Geneva.
19. Ashton, J. (1991). *Sanitarian becomes ecologist: the new environmental health*. *British Medical Journal*; **302**: 189-190.
20. Handszuh, H. (1991). *Tourism trends and patterns*. pp.8-9. In: *Travel Medicine 2*. Eds. Lobel, H.O., Steffen, R., and Kozarsky, P.E. pub. International Society of Travel Medicine, Georgia, USA.; 347pp.
21. Howe, G.M., and Lorraine, J.A. (1973). *Environmental Medicine*; pub. Heinemann, London; 320pp.

22. Editorial. (1995). *Developing environmental health services: Distinguishing the signposts to progress*. European Bulletin on Environment and Health; **3**(4): 6-7.
23. WHO. (1989). *European Charter on Environment and Health*; pub. WHO Regional Office for Europe, ICP/RUD/113/conf.Doc.1/rev. 2803r, 7 December, 7pp.
24. Shrader-Frechette, K. (1991). *Ethics and the environment*. World Health Forum; **12**: 311-321.
25. Ungureanu, V.E. (1998). *Ecosophy and ecorphofilaxy in tourist health*. In: Abstracts Book 93. Conference Proceedings: Mobility and Health: From Hominid Migration to mass Tourism. European Conference on Travel Medicine; pub. WHO Collaborating Centre for Tourist Health and Travel Medicine, Rimini, Italy; 196pp.
26. Ungureanu, V.E. (2000). *Ecotourism and health problems - to a new understanding of man-nature inter-relation*. p.94. In: Abstracts Book: Ulysses in the Third Millennium: New Trends in Tourism and Medicine. 2nd European Conference on Travel Medicine, March 29-31; Venice, Italy. pub. WHO Collaborating Centre for Tourist Health and Travel Medicine, Rimini, Italy; 190pp.
27. Kovacevic-Cabrijan, Z. (1988). *Aesthetic medicine in tourism*. p.383. In: medical Problems in Tourism: Proceedings of the Introductory Papers and Summaries. The Medical Academy of Croatia and the Thalassotherapy Crikvenica; 401pp.
28. Holm, S. (2000). *Changes to bodily appearance; the aesthetics of deliberate intervention*. Journal of Medical Ethics: Medical Humanities; **26**:43-48.
29. Sheppard, A. (1987). *Aesthetics: an introduction to the philosophy of art*. pub. Oxford University Press; 172pp.
30. Eaton, M.M. (1995). *The social construction of aesthetic response*. British Journal of Aesthetics; **35**(2): 95-107.
31. Maclagan, D. (2001). *Psychological aesthetics*. pub. Jessica Kingsley, London; 157pp.
32. Pawlowski, T. (1989). *Aesthetic Values*. pub. Kluwer; Vol. 31; Nijhoff International Philosophy Series; 138pp.
33. WHO (2000). <http://www.conference2000.ch>

34. WHO (1988). *Priority Research for Health for All*. European Health for All Series No.3. pub. WHO Regional Office for Europe, 164pp.
35. WHO (1982). *Selected Techniques for Environmental Management: Training Manual*. pub. WHO Geneva, EFP/83.50, 97pp.
36. WHO (1988). *Research Policies for Health for All*. European Health for All Series No.2. pub. WHO Regional Office for Europe, 46pp.
37. Mooney, G. (1995). *Book Review: Social dimensions of health and disease. New Zealand perspectives*. Australian Journal of Public Health; **19**(3): 318-319.
38. WHO. (1988a). *From Alma-Ata to the year 2000; reflections at the mid-point*. pub. WHO, Geneva; 158pp.
39. Philipp, R. (1996). *The arts support 'respect for all'*. Migration and Mental Health Newsletter; **3**(2): 4. pub. Scientific Institute of the German Medical Association and WHO Collaborating Centre for Migration and Health.
40. Philipp, R., Pond, K, Rees, G., and Bartram, J. (1999). *The association of tourist health with aesthetic quality and environmental values*. pp.195-199. In: *Mobility and Health: From Hominid Migration to Mass Tourism*. Proceedings of European Conference on Travel Medicine, Venice, 25-27 March 1998. pub. WHO Collaborating Centre for Tourist Health and Travel Medicine, Italy, and Regione Veneto; 381pp.
41. Giroult, E. (1988). *Guidelines on environmental safety in touristic cities*. pp.251-264. In: *Tourist Health: a new branch of public health*. Ed. Walter Pasini. pub. WHO Collaborating Centre for Tourist Health and Travel Medicine, Rimini, Italy; 274pp.
42. Velmirovic, B. (1988). *Health promotion and tourism*. pp.21-32. In: *Tourist Health: a new branch of public health*. Vol. 1. Ed. Walter Pasini. pub. WHO Collaborating Centre for Tourist Health and Travel Medicine, Rimini, Italy; 274 pp.
43. Diomidis, M. (1990). *Healthy cities*. pp.382-389. In: *Tourist Health*; Ed. Walter Pasini; pub. WHO Collaborating Centre for Tourist Health and Travel Medicine, Rimini, Italy; 504pp.
44. Philipp, R., and Wood, N. (1992). *Which way for housing and human settlements?* World Health Forum; **13**: 237-239.
45. Westra, L., and Robinson, T.M. (1997). *The Greeks and the Environment*. pub. Rowman and Littlefield Inc., Oxford; 230pp.

46. Philipp, R., Vallance, P., and Carter, J. (2000). *The river tootle. Regatta*; Journal of the Amateur Rowing Association; No. 134: 24-25.
47. Philipp, R. (2002). [in a collaboration with Baum, M., Macnaughton, J., and Calman, K]. *Arts, health and Well-being: From the Windsor I Conference to a Nuffield Council for the Medical Humanities*. In Press: pub. The Nuffield Trust, London.
48. Philipp, R. (1999). *Evaluating the arts in mental health care and mental health promotion - the example of creative writing*. pp.96-114. In: *The Arts in Health Care: Learning from Experience*. Eds. Haldane, D., and Loppert, S. pub. Kings Fund; London; 164pp.
49. Puttock, D. (2000). *Dance as a base for the arts in therapy*. The Galatea Trust, London: Newsletter No. 10: 1-3.
50. Palmer, S. (1991). *Behaviour therapy and its application to stress management*. Health and Hygiene **12**: 29-34.
51. Philipp, R., and Robertson, I. (1996). *Poetry helps healing*. The Lancet **347**: 332-333.
52. Philipp, R. (1995). *Try the rhythm method*. University of Bristol Newsletter: 18 May; 4.
53. Philipp, R. (1997). *Beaches beyond quantification: With all my senses*. Current Quality; Edn. 1: pub. WHO Regional Office for Europe; 5.
54. Philipp, R. (1992). *The art of air quality*. European Bulletin on Environment and Health; **1**(2): 15.
55. Denton, D. (1993). *The Pinnacle of Life: Consciousness and Self-Awareness in Humans and Animals*. pub. Allen and Unwin, Australia; 250pp.
56. Mosley, I. (1994). *The Green Book of Poetry*. pub. Frontier; 352pp.
57. Santayana, G. (1988). *The Sense of Beauty*. Critical Edition Vol. 2. Eds. Saatkamp, H.J., and Holzberger, W.G. pub. MIT Press; 248pp.
58. Girling, R. (1998). *Concrete cancer*. The Sunday Times Magazine, England; 16-22.

59. Philipp, R. (1996). *Conceptual frameworks for setting environmental standards*. Int. Journal for Occupational Medicine and Environmental Health; **9**(3): 201-210.
60. Ministry of Agriculture and Forestry, New Zealand. (2000). [ww.maf.govt.nz/forestry](http://www.maf.govt.nz/forestry).
61. Editorial. (2001). *What price a view like this?* The National Trust Magazine, Autumn; No. 94: 4.
62. Mc Getrick, B.J. (2001). *Values and educating the whole person*. Occasional Paper No.2 on Values and Education: pub. Scottish Consultative Council on the Curriculum. www.creativecommunities.org.uk/bjmcbg.html.
63. Marson, G.K. (2001). *The 'value case' for investment in occupational health*. Occupational Medicine; **51**(8): 496-500.
64. Philipp, R., and Hodgkinson, G. (1994). *The management of health and safety hazards in tourist resorts*. International Journal of Occupational Medicine and Environmental Health; **7**(3): 207-219.
65. Editorial. (1986). Occupational Health Review; June/July: 19.
66. WHO. (1987). *Air Quality Guidelines for Europe*. WHO Regional Publications Series No. 23; 426pp.
67. Follain, J. (2002). *Tourist-clogged Venice may get Tube system*. The Sunday Times, England January 13; Sect.1: 26.
68. Jepson, T. (1997). *AA Essential Explorer: Venice*. pub. Automobile Association Publishing, UK; 287pp.
69. Philipp, R., and Thorne, P. (2002). *Recreational water and beaches*; pp.84-88: In: Chapter 3; Water; In: Travellers' Health. Ed. Richard Dawood; 4th Edition; pub. Oxford University Press; 730pp.
70. McMahon, S. (Editor) (2002). *Indicators of quality of life in Bristol - Sustainability Update*. pub. Bristol City Council; 56pp.
71. Philipp, R., Baum, M., Mawson, A., and Calman, K. (1999). *Humanities in Medicine: Beyond the Millennium*. pub. The Nuffield Trust, London; Nuffield Trust Series, No.10: 164pp.
72. Philipp, R., Philipp, E., and Thorne, P. (1999). *The importance of intuition in the occupational medicine clinical consultation*. Occupational Medicine; **49**(1): 37-41.

73. Philipp, R. (2002). *Algal blooms*; pp.88-92; In Chapter 3: Water: In: Travellers' Health. Ed. Richard Dawood; 4th Edition; pub. Oxford University Press; 730pp.
74. Helal, B., and Philipp, E. (2002). *Skiing*; pp.381-392: In Chapter 8: Environmental and recreational hazards. In: Travellers' Health. Ed. Richard Dawood; 4th Edition; pub. Oxford University Press; 730pp.
75. Philipp, R. (1992). *Environmental quality objectives and their relationship to aesthetic health indicators*. Biologist; **39**(1): 34.
76. World Health Organisation. (1993). *Health for All: The Health Policy for Europe*. pub. WHO Regional Office for Europe, European Health for All Series, No. 4; 228pp.